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| 09/895,047 | 06/29/2001 | Santosh S. Chandrachood | CISCO-4306 | 9309 |

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| EXAMINER | |
| BATURAY, ALICIA | |
| ART UNIT | PAPER NUMBER |
| 2155 | |

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/895,047

Applicant(s)

CHANDRACHOOD, SANTOSH S.

Examiner

Alicia Baturay

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 74,75,77-80,82,83,85-88,90,91,93-96,98,99,101-104 and 106-109 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 74,75,77-80,82,83,85-88,90,91,93-96,98,99,101-104 and 106-109 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the amendment filed 13 July 2006.
2. Claims 74, 75, 77, 78, 80, 82, 83, 85, 86, 88, 90, 91, 93, 94, 96, 98, 99, 101, 102 and 104 were amended.
3. Claims 1-73, 76, 81, 84, 89, 92, 97, 100 and 105 were cancelled.
4. Claims 106-109 were added.
5. Claims 74, 75, 77-80, 82, 83, 85-88, 90, 91, 93-96, 98, 99, 101-104 and 106-109 are pending in this Office Action.

Response to Amendment

6. The rejection of claims 82-97 under 35 U.S.C. § 101 was addressed and is withdrawn.
7. The rejection is respectfully maintained as set forth in the last Office Action mailed on 10 April 2006. Applicant's arguments with respect to claims 74, 75, 77-80, 82, 83, 85-88, 90, 91, 93-96, 98, 99, 101-104 and 106-109 have been fully considered but they are not persuasive and the old rejection maintained.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. Claims 74, 75, 79, 82, 83, 87, 90, 91, 95, 98, 99 and 103 are rejected under 35 U.S.C. § 103(a) as being unpatentable by Chen et al. (U.S. 6,076,107) and further in view of Williams (U.S. 6,151,630).

Chen teaches the invention substantially as claimed including a method of data retrieval that reduces the number of message flows in a Simple Network Management Protocol (SNMP) device (see Abstract).

10. With respect to claim 74, Chen teaches a method of predictively responding to a network management data request, the method comprising:

Receiving a first network management data request (Chen, col. 6, lines 50-54); sending a response including the data responsive to the first network management data request, if the data responsive to the first network management data request is contained in the cache (Chen, col. 7, lines 1-7).

Chen does not explicitly teach determining if a request contains a defined pattern.

However, Williams teaches determining if the first data request matches a pattern of request defined in a memory (when a user first accesses server (i.e., server receives a request for a page from a new user)...processor initializes the allocated memory for variables associated with this session...this involves making and loading a copy of records of all pages...of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests – see Williams, col. 4, line 11-29), the pattern including one or more expected data requests (the

author of pages 107 define[s] a sequence of pages – see Williams, col. 3, lines 26-27); and determining if data responsive to the first data request (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39) is contained in a cache of prefetched data (loading a copy of records of all pages of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests. Optionally, processor may also place the corresponding pages in a cache memory – see Williams, col. 4, lines 20-30) if the first data request matches a pattern defined in the memory (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39); and collecting, if the first network management data request matches a pattern defined in the memory, data responsive to any remaining network data requests in the matched pattern (when a user first accesses server (i.e., server receives a request for a page from a new user)...processor initializes the allocated memory for variables associated with this session...this involves making and loading a copy of records of all pages...of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests – see Williams, col. 4, line 11-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chen in view of Williams in order to enable determining if a request contains a defined pattern. One would be motivated to do so in order to enable loading a copy of a set of data into a cache memory to service a user's requests.

11. With respect to claim 75, Chen teaches the invention described in claim 74, including the method further comprising:

Transmitting the first network management data request to a network management data core to respond to the first network management data request if the first network management data request does not match a pattern defined in the memory (Chen, col. 3, lines 32-46).

12. With respect to claim 79, Chen teaches the invention described in claim 74, including the method where the network management data request is a Simple Network Management Protocol (SNMP) request (Chen, col. 5, lines 3-7).

13. Claims 82, 83, 87, 90, 91, 95, 98, 99 and 103 do not teach or define any new limitations above claims 74, 75 and 79 and therefore are rejected for similar reasons.

14. Claims 77, 78, 80, 85, 86, 88, 93, 94, 96, 101, 102, 104 and 106-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Williams and further in view of Case et al. ("Request for Comments: 1157").

15. With respect to claim 77, Chen teaches the invention described in claim 74, including a method of predictively responding to a network management data request, the method comprising:

Receiving a first network management data request (Chen, col. 6, lines 50-54); sending a response including the data responsive to the first network management data request, if the data responsive to the first network management data request is contained in the cache (Chen, col. 7, lines 1-7).

Chen does not explicitly teach determining if a request contains a defined pattern.

However, Williams teaches determining if the first data request matches a pattern of request defined in a memory (when a user first accesses server (i.e., server receives a request for a page from a new user)...processor initializes the allocated memory for variables associated with this session...this involves making and loading a copy of records of all pages...of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests – see Williams, col. 4, line 11-29), the pattern including one or more expected data requests (the author of pages 107 define[s] a sequence of pages – see Williams, col. 3, lines 26-27); and determining if data responsive to the first data request (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39) is contained in a cache of prefetched data (loading a copy of records of all pages of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests. Optionally, processor may also place the corresponding pages in a cache memory – see Williams, col. 4, lines 20-30) if the first data request matches a pattern defined in the memory (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record

that corresponds to the received URL exists – see Williams, col. 4, lines 34-39); and collecting, if the first network management data request matches a pattern defined in the memory, data responsive to any remaining network data requests in the matched pattern (when a user first accesses server (i.e., server receives a request for a page from a new user)...processor initializes the allocated memory for variables associated with this session...this involves making and loading a copy of records of all pages...of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests – see Williams, col. 4, line 11-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chen in view of Williams in order to enable determining if a request contains a defined pattern. One would be motivated to do so in order to enable loading a copy of a set of data into a cache memory to service a user's requests.

The combination of Chen and Williams does not explicitly teach what the pattern comprises of.

However, Case teaches where the pattern further comprises a periodicity of the network management data requests contained in the pattern (Case, page 6, lines 7-11).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chen and Williams in view of Case in order to use a specific type of pattern. One would be motivated to do so in order to minimize the amount of traffic generated by the network management function.

16. With respect to claim 78, Chen teaches the invention described in claim 106, including a method of predictively responding to a network management data request, the method comprising:

Sending a response including data responsive to the prefetched network management data request if the data responsive to the network management data request is contained in the cache of prefetched network management data (Chen, col. 7, lines 1-7); and initiating periodic data collections for data relating to the pattern if the data responsive to the network management data request is not contained in the cache of prefetched network management data (Chen, col. 7, lines 8-12).

Chen does not explicitly teach determining if a request contains a defined pattern.

However, Williams teaches determining if the data request contains a pattern (one record exists for each page that is included in a sequence – see Williams, Fig. 1, elements 108 and 109; col. 3, lines 1-3) defined in a memory and determining if data responsive to the data request (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39) is contained in a cache of prefetched data (loading a copy of records of all pages of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests. Optionally, processor may also place the corresponding pages in a cache memory – see Williams, col. 4, lines 20-30) if the data request contains a pattern defined in the memory (a user requests a page by specifying a URL...Receipt of such a request at server

invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chen in view of Williams in order to enable determining if a request contains a defined pattern. One would be motivated to do so in order to enable loading a copy of a set of data into a cache memory to service a user's requests.

The combination of Chen and Williams does not explicitly teach what the initiating periodic data collections comprise of.

However, Case teaches where the initiating includes initiating periodic data collections at a rate matching a periodicity of the network management data requests containing the pattern (Case, page 6, lines 7-11).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chen and Williams in view of Case in order to use a specific type of pattern. One would be motivated to do so in order to minimize the amount of traffic generated by the network management function.

17. With respect to claim 80, Chen teaches the invention described in claim 74, including a method of predictively responding to a network management data request, the method comprising:

Sending a response including data responsive to the prefetched network management data request if the data responsive to the network management data request is contained in the cache of prefetched network management data (Chen, col. 7, lines 1-7); and initiating

periodic data collections for data relating to the pattern if the data responsive to the network management data request is not contained in the cache of prefetched network management data (Chen, col. 7, lines 8-12).

Chen does not explicitly teach determining if a request contains a defined pattern.

However, Williams teaches determining if the data request contains a pattern (one record exists for each page that is included in a sequence – see Williams, Fig. 1, elements 108 and 109; col. 3, lines 1-3) defined in a memory and determining if data responsive to the data request (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39) is contained in a cache of prefetched data (loading a copy of records of all pages of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests. Optionally, processor may also place the corresponding pages in a cache memory – see Williams, col. 4, lines 20-30) if the data request contains a pattern defined in the memory (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chen in view of Williams in order to enable determining if a request contains a defined pattern. One would be motivated to do so in order to enable loading a copy of a set of data into a cache memory to service a user's requests.

The combination of Chen and Williams does not explicitly teach what the pattern comprises of.

However, Case teaches where the determining if a first network management request matches a pattern of request based on at least one of: a community string; a network management system IP address; and a network management system port number (Case, page 13, last paragraph – page 14, first paragraph).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chen and Williams in view of Case in order to use a specific type of pattern. One would be motivated to do so in order to minimize the amount of traffic generated by the network management function.

18. With respect to claim 106, Chen teaches the invention described in claim 74, including a method of predictively responding to a network management data request, the method comprising:

Receiving a first network management data request (Chen, col. 6, lines 50-54); sending a response including the data responsive to the first network management data request, if the data responsive to the first network management data request is contained in the cache (Chen, col. 7, lines 1-7).

Chen does not explicitly teach determining if a request contains a defined pattern.

However, Williams teaches determining if the first data request matches a pattern of request defined in a memory (when a user first accesses server (i.e., server receives a request for a page from a new user)...processor initializes the allocated memory for variables

associated with this session...this involves making and loading a copy of records of all pages...of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests – see Williams, col. 4, line 11-29), the pattern including one or more expected data requests (the author of pages 107 define[s] a sequence of pages – see Williams, col. 3, lines 26-27); and determining if data responsive to the first data request (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39) is contained in a cache of prefetched data (loading a copy of records of all pages of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests. Optionally, processor may also place the corresponding pages in a cache memory – see Williams, col. 4, lines 20-30) if the first data request matches a pattern defined in the memory (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39); and collecting, if the first network management data request matches a pattern defined in the memory, data responsive to any remaining network data requests in the matched pattern (when a user first accesses server (i.e., server receives a request for a page from a new user)...processor initializes the allocated memory for variables associated with this session...this involves making and loading a copy of records of all pages...of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests – see Williams, col. 4, line 11-29) and

the method further comprising: if the first network management data request matches a pattern defined in the memory, but data responsive to the first network management data request is not contained in the cache (loading a copy of records of all pages of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests. Optionally, processor may also place the corresponding pages in a cache memory – see Williams, col. 4, lines 20-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chen in view of Williams in order to enable determining if a request contains a defined pattern. One would be motivated to do so in order to enable loading a copy of a set of data into a cache memory to service a user's requests.

The combination of Chen and Williams does not explicitly teach what the initiating periodic data collections comprise of.

However, Case teaches initiating periodic data collections for data responsive to network management data requests in the pattern (Case, page 6, lines 7-11).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chen and Williams in view of Case in order to use a specific type of pattern. One would be motivated to do so in order to minimize the amount of traffic generated by the network management function.

19. Claims 85, 86, 88, 93, 94, 96, 101, 102, 104 and 107-109 do not teach or define any new limitations above claims 77, 78, 80 and 106 and therefore are rejected for similar reasons.

Response to Arguments

20. Applicant's arguments filed 13 July 2006 have been fully considered, but they are not persuasive for the reasons set forth below.

21. ***Applicant Argues:*** Applicant states "Chen, whether considered alone or combined with or modified by Williams, does not teach or suggest determining if a received first network management data request matches a pattern of request defined in a memory, the pattern including one or more expected management data requests, and if the first network management data request matches a pattern defined in the memory, collecting data responsive to any remaining network management data requests in the matched pattern."

In Response: The examiner respectfully submits that the combination of Chen and Williams does teach determining if a received first network management data request (Chen, col. 6, lines 50-54).

Chen does not explicitly teach determining if a request contains a defined pattern.

However, Williams teaches determining if a received first network data request matches a pattern of request defined in a memory (when a user first accesses server (i.e., server receives a request for a page from a new user)...processor initializes the allocated memory for variables associated with this session...this involves making and loading a copy of records of all pages...of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests – see Williams, col. 4, line 11-29), the pattern including one or more expected management data

requests (the author of pages 107 define[s] a sequence of pages – see Williams, col. 3, lines 26-27), and if the first network management data request matches a pattern defined in the memory (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39), collecting data responsive to any remaining network management data requests in the matched pattern (when a user first accesses server (i.e., server receives a request for a page from a new user)...processor initializes the allocated memory for variables associated with this session...this involves making and loading a copy of records of all pages...of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests – see Williams, col. 4, line 11-29). This renders the rejection proper, and thus the rejection stands.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Baturay whose telephone number is (571) 272-3981. The examiner can normally be reached at 7:30am - 5pm, Monday - Thursday, and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alicia Baturay
August 24, 2006


SALEH NAJJAR
SUPERVISORY PATENT EXAMINER